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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,326	09/02/2004	Armin Kuebelbeck	LEIF-0007	8765

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EXAMINER

ABU ALI, SHUANGYI

ART UNIT	PAPER NUMBER
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1755

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/506,326

Applicant(s)

KUEBELBECK ET AL.

Examiner

Shuangyi Abu-Ali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 09/02/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

(1)

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1- 3, 6, 8 – 11 and 18-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites "coating " in line 3 and " each layer" in line 3, it is not clear whether the coating comprising layers or the coating is the layer.

Claim 2 recites the limitation "the inorganic material" in lines 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the metal flakes or metal foils" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the medium " in line 4 and "the pigment" in line 5. There is insufficient antecedent basis for those limitations in the claim.

Claim 8 recites the limitation "the outmost coating" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitation "the outmost layer" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 10 recites the limitation "the outmost layer" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitation "the outmost layer " in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 18 recites the limitation "the final coating step" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 19 recites the limitation "the outmost layer" in line 3. There is insufficient antecedent basis for this limitation in the claim.

(2)

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 20 and 21 provide for the use of carrier material, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 20 and 21 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an

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improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

(3)

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 974,874.

Regarding claims 1-3, GB 974,874 discloses a flaky aluminum or mica pigment (page 1, lines 22 and 33) coated with a modified melamine formaldehyde resin (page 10, line 92).

Regarding claims 20 - 21, GB 974,874 discloses that the pigment can be used in paint, printing ink, plastic film and rubber article (page 10, lines 33-40).

Regarding claim 22, GB 974,874 discloses that the pigment can be used as AN effect pigment (page 1, lines 35-38).

(4)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB patent 974,874, in view of U.S. Patent No. 6,699,313 B2 to Coulter et al.

Regarding claims 4 and 5, GB patent 974,874 discloses a flaky aluminum or mica pigment (page 1, lines 22 and 33) coated with a modified melamine formaldehyde resin (page 10, line 92) as set forth above. But they are silent about the metal flake pigment is coated with metallic coating as applicant set forth in claims 3 and 4.

However, Coulter et al., drawn to coated flake-based pigment, disclose that plate-like pigment is coated with copper, silver, gold, platinum, nickel and so on (col. 8, lines 12-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to coated the flaky pigment with metallic coating, motivated by the fact that the pigment has good optical characteristics, good chemical resistance and durability (col.5, lines 1-5).

(4)

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB Patent No. 974,874, in view of EP Patent No.0445342 A1 to Calvo et al.

Regarding claim 6, GB patent 974,874 discloses a flaky aluminum or mica pigment (page 1, lines 22 and 33) coated with a modified melamine formaldehyde resin (page 10, line 92) as set forth above. But they are silent about the resin layer containing dyes or UV absorbers as applicant set forth in claim 6.

However, Calvo et al., also drawn to make pigments useful for cosmetic composition, disclose a resin, such as melamine –formaldehyde (col. 4, line 5), can be incorporated with dyes and UV absorbers (col. 5, lines 40-45 and col. 7, lines 12-18). The dyes are soluble in a mutual solvent for the resin and dyes (col. 5, lines 15-20)

Therefore, it would have been obvious to one of ordinary skill in that art at the time of invention by applicant to coated GB patent 974,874 flaky pigment with a melamine- formaldehyde resin containing dyes or /and UV absorbers, motivated by the fact that the pigment imparts desired color and UV protection in cosmetic application (col. 7, lines 6-18).

(5)

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over combining teaching of GB Patent No. 974,874, and EP Patent No.0445342 A1 to Calvo et al., further in view of US Patent No. 6,699,313 B2 to Coulter et al.

Regarding claim 7, combining teaching of GB Patent No. 974,874, and EP Patent No.0445342 A1 to Calvo et al. discloses an inorganic pigment having a coating of melamine-formaldehyde resin incorporated with dyes and UV absorbers. But they are silent about the pigment having an inner layer of resin with dye and an outlayer of resin with UV absorber as applicant set forth in claim 7.

However, Coulter et al. disclose a flaky pigment comprising of a layer of dyes and an outlayer of absorbers (col. 15, line 65 – col. 16, line 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to coated the flaky substrate with an inner layer of resin with dyes and an outer layer of resin with UV absorbers, motivated by that fact that the pigment of such coating arrangement has good optical characteristics (col. 16, line 6-7).

(6)

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over combining teaching of GB Patent No. 974,874 and EP Patent No.0445342 A1 to Calvo et al., further in view of US Patent No. 5,795,507 to Crews et al.

Regarding claim 8, combining teaching of GB Patent No. 974,874, and EP Patent No.0445342 A1 to Calvo et al. discloses an inorganic pigment having a coating of melamine-formaldehyde resin incorporated with dyes and UV absorbers. But they are silent about the pigment having spherical shape as applicant set forth in claim 8.

However, Crews et al., also drawn to colorant incorporated resin, disclose a composition of having spherical shape melamine-formaldehyde resin (col. 1, lines 50-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to make spherical shape melamine-formaldehyde resin coating, motivated by the fact that spherical shape resin has good stability (col. 1., lines 50-60).

Regarding claims 9-11, combining teaching of GB Patent No. 974,874 and EP Patent No.0445342 A1 to Calvo et al. disclose an inorganic pigment having a coating of melamine-formaldehyde resin incorporated with dyes and UV absorbers. But they are silent about the resin has functional group as applicant set forth in claim 9.

However, Crews et al. also drawn to colorant incorporated resin, disclose resins having amino function group used in a composition (col. 2, line 22).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to make a functionalized melamine-formaldehyde resin

coating, motivated by the fact that no fading or bleeding of the color will happen (col. 2., lines 20-21).

(7)

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over combining teaching of GB Patent No. 974,874 and EP Patent No.0445342 A1 to Calvo et al., further in view of US Patent No. 4,702,574 to Bawa et al.

Regarding claim 12, combining teaching of GB Patent No. 974,874 and EP Patent No.0445342 A1 to Calvo et al. discloses an inorganic pigment having a coating of melamine-formaldehyde resin incorporated with dyes and UV absorbers. But they are silent about using two fluorescent dyes as applicant set forth in claim 12.

However, it would have been obvious to one of ordinary skill in that art at the time of invention by applicant to use dyes as applicant set forth in claim 12, motivated by the fact that Bawa et al., also drawn to the study of melamine formaldehyde resin incorporated with fluorescent dyes (col. 4, lines 12-13), disclose that when one of the colorant is used as a sensitizer in a colorant mixture, brilliant color obtained (col. 11, lines 10-13).

(8)

Claims 13,15 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,825,259 B2 to Miyazaki et al., in view of U.S. Patent No. 5,795, 507 to Crews et al.

Regarding claim 13, Miyazaki et al. disclose a pearlscent pigment or scale-like coated with a melamine resin (col. 1, lines 61-62) can be made through dispersing

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pigments and resin monomer in a dispersant and then polymerizing resin monomers (col. 4, lines 33-35).

But they are silent about the detail procedure of making melamine – formaldehyde resin coating as applicant set forth in claim 13.

However, Crews et al. disclose a process of polymerizing melamine with formaldehyde:

- 1) Preparing resin monomers in basic solution (col. 6, line 40); and
- 2) Adding an acid to lower solution to acidic range (col. 6, line 44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention by applicant to use Crew et al. method to make a melamine-formaldehyde resin coating in Miyazaki et al. pearlescent pigment motivated by the fact that uniform resin coating can be achieved (col. 4, lines 3-5).

Regarding claim 15, Crews et al. disclose that dyes are added into the composition before cross-linking happens (col. 5, lines 61-63).

Regarding claims 18 and 19, Crew et al. disclose that the melamine-formaldehyde resin with amino group will have a good resistance of dye fading and bleeding (col. 2., lines 20-21).

(9)

Claims 14 are rejected under combining teaching of U. S. Patent No. 6,825,259 B2 to Miyazaki et al. and U.S. Patent No. 5,795, 507 to Crews et al., in further view of GB patent NO. 858,072.

Regarding claim 14, combining teaching of U. S. Patent No. 6,825,259 B2 to Miyazaki et al. and U.S. Patent No. 5,795, 507 to Crews et al. disclose a method of making platelike pigment with melamine-formaldehyde resin coating as set forth above. But they are silent about using other resins as set forth in claim 14.

However, It would have been obvious to one of ordinary skill in the art at he time of invention by applicant to use other formaldehyde resin such as urea/formaldehyde in the coating, motivated by the fact that GB No. 858,072, also drawn to the study of resin colorant, disclose that urea-formaldehyde and melamine-formaldehyde can be used in coating (page 4, lines 70-73).

(10)

Claim 17 is rejected under combining teaching of U. S. Patent No. 6,825,259 B2 to Miyazaki et al. and U.S. Patent No. 5,795, 507 to Crews et al., in further view of U. S. Patent No. 3,778383 to Schibler et al.

Regarding claim 17, combining teaching of U. S. Patent No. 6,825,259 B2 to Miyazaki et al. and U.S. Patent No. 5,795, 507 to Crews et al. discloses a method of making platelike pigment with a melamine-formaldehyde resin coating as set forth above. But they are silent about using hydrogen peroxide to lower the pH in acidic range as set forth in claim 17 by applicant.

However, it would have been obvious to one of ordinary skill in the art at time of invention by applicant to use hydrogen peroxide in combined teaching of Miyazaki et al. and Crews et al., motivated by the fact that Schibler et al., also drawn to the study of

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resin coating substrate, disclose that hydrogen peroxide can be used to form formic acid to lower the Ph (col. 6, lines 35 and 36).

(11)

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Such prior art is listed on PTO-892 F-K. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuangyi Abu-Ali whose telephone number is 571-272-6453. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SA


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